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INFORMATION DISCLOSURE
IN AN APPLICATION
 (Use several sheets if necessary)
Docket Number (Optional)
MTV-033.01Applicant Number
09/901,466Applicant
Stephen J. Lippard et al.Filing Date
July 9, 2001Group Art Unit
1641**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NUMBER		DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
MEC	A1	4,510,251	04/09/1985	Kirkemo et al.	436	536	11/08/1982
MEC	A2	5,756,771	05/26/1998	Mattingly	549	223	05/22/1995
MEC	A3	5,986,094	11/16/1999	Ghoshal et al.	544	230	04/18/1997
MEC	A4	6,013,802	01/11/2000	Hoyland et al.	546	18	02/07/1997
MEC	A5	6,063,637	05/16/2000	Arnold et al.	436	94	07/07/1997
MEC	A6	6,083,758	07/04/2000	Imperiali et al.	436	73	04/09/1997

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO
B1							

OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages Etc.)

MEC	C1	Dan Atar et al., "Excitation-Transcription Coupling Mediated by Zinc Influx through Voltage-dependent Calcium Channels", <i>The Journal of Biological Chemistry</i> , Vol. 270, No. 6, pp. 2473-2477 (1995)					
MEC	C2	Elena Belgodere et al., "Imidazolecarboxylic Acids and Their Derivatives. Synthesis of 10H-Imidazo [1, 5-a] Pyrido[1, 2-d]Pyrazin-10-One, A Novel Ring System", <i>Heterocycles</i> , Vol. 23, No. 2, (1985)					
MEC	C3	T. Budde et al., "Imaging Free Zinc In Synaptic Terminals In Live Hippocampal Slices", <i>Neuroscience</i> , Vol. 79, No. 2, pp. 347-358 (1997)					
MEC	C4	Shawn C. Burdette et al., "Fluorescent Sensors for Zn ²⁺ Based on a Fluorescein Platform: Synthesis, Properties and Intracellular Distribution", <i>J. Am. Chem. Soc.</i> , Vol. 123, No. 32, pp. 7831-7841 (2001)					
MEC	C5	L.M.T. Canzoniero et al., "Measurement of Intracellular Free Zinc in Living Neurons" <i>Neurobiology of Disease</i> , Vol. 4, Article No. NB970160, pp. 275-279 (1997)					
MEC	C6	Dennis W. Choi et al., "Zinc And Brain Injury", <i>Annu. Rev. Neurosci.</i> , Vol 21, pp. 347-375 (1998)					
MEC	C7	Math P. Cuajungco et al., "Zinc Metabolism in the Brain: Relevance to Human Neurodegenerative Disorders" <i>Neurobiology of Disease</i> , Vol. 4, Article No. NB970163, pp. 137-169 (1997)					
MEC	C8	M. M. da Mota et al., "The Co-ordination Number to Transition-metal Ions. Part VII. An Evaluation of Steric Factor Factors in the Stabilisation of High-spin Five-coordinate Nickel(II) Complexes of Mutidendate α -Pyridyl Ligands" <i>J. Chem. Soc.</i> , pp. 2036-2044 (1969)					
MEC	C9	A. Prasanna de Silva et al., "Signaling Recognition Events with Fluorescent Sensors and Switches", <i>Chemical Reviews, American Chemical Society</i> , Vol. 97, No. 5, pp. 1515-1566 (1997)					
MEC	C10	M. Ebadi et al., "Amino Acid Composition, Immunoreactivity, Sequence Analysis, and Function of Bovine Hippocampal Metallothionein Isoforms" <i>Journal of Neurochemistry</i> , Vol. 66, No. 5, pp. 2121-2127 (1996)					
MEC	C11	R. L. Evans et al., "Synthesis of γ -Aminobutyryl- γ -aminobutyric Acid", <i>The Journal of Organic Chemistry</i> , Vol. 24, pp. 863-864 (1959)					

Mary E. Caporale 12/26/02

Form PTO-1449		Docket Number (Optional) MTV-033.01		Applicant Number 09/901,466	
INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)		Applicant Stephen J. Lippard et al.		FEB 11 2002 PATENT & TRADEMARK OFFICE	
		Filing Date July 9, 2001			
		Group Art Unit 1645 / 641			
MAC	C12	Christoph J. Fahmi et al., "Aqueous Coordination Chemistry of Quinoline Based Fluorescence Probes for the Biological Chemistry of Zinc", <i>J. Am. Chem. Soc.</i> , Vol. 121, No. 49, pp. 11448-11458 (1999)			
MAC	C13	Andrew L. Feig et al., "A Carboxylate-Bridged Non-Heme Diiron Dinitrosyl Complex" <i>Inorganic Chemistry, American Chemical Society</i> , Vol. 35, No. 23, pp. 6892-6898 (1996)			
MAC	C14	C. J. Frederickson et al., "A quinoline fluorescence method for visualizing and assaying the histochemically reactive zinc (boutsin zinc) in the brain", <i>Journal of Neuroscience Methods</i> , Vol. 20, pp. 91-103 (1987)			
MAC	C15	Christopher J. Frederickson, "Neurobiology of Zinc and Zinc-Containing Neurons", <i>International Review of Neurobiology</i> , Vol. 31, pp 146-238 (1989)			
MAC	C16	C. J. Frederickson et al., "Zinc-Containing Neurons", <i>Biological Signals</i> , Vol. 3, pp. 127-139 (1994)			
MAC	C17	von Giorgio Anderegg et al., Pyridinderivate als Komplexbildner. XI Die Thermodynamik der Metallkomplexbildung mit Bis-, Tris- und Tetrakis [(2-pyridyl)methyl]-aminen", <i>Helvetica Chimica Acta</i> , Vol. 60, Fasc. 1, pp. 123-140 (1977)			
MAC	C18	Vasilii Goral et al., "Double-level "orthogonal" dynamic combinatorial libraries on transition metal template", <i>Proceedings of the National Academy of Sciences</i> , Vol. 98, No. 4, pp. 1347-1352 (2001)			
MAC	C19	Dieter W. Gruenwedel, "Multidentate Coordination Compounds. Chelating Properties of Aliphatic Amines Containing α -Phenyl Residues and Other Aromatic Ring Systems as Donor Groups", <i>Inorganic Chemistry</i> , Vol. 7, No. 3, pp 495-501 (1968)			
MAC	C20	N. L. Harrison et al., " Zn^{2+} : an Endogenous Modulator of Ligand- and Voltage-gated Ion Channels", <i>Neuropharmacology</i> , Vol. 33, No. 8, pp. 935-952 (1994)			
MAC	C21	Robert P. Houser et al., "Structural Characterization of the First Example of a Bis(μ -thiolato)dycopper(II) Complex. Relevance to Proposals for the Electron Transfer Sites in Cytochrome c Oxidase and Nitrous Oxide Reductase", <i>J. Am. Chem. Soc.</i> , Vol. 117, No. 43, pp. 10745-10746 (1995)			
MAC	C22	Emily P. Huang, "Metal ions and synaptic transmission: Think Zinc", <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 94, pp. 13386-13387 (1997)			
MAC	C23	Zoltan Kovacs et al., "A General Synthesis of Mono- and Disubstituted 1,4,7-Triazaacyclononanes", <i>Tetrahedron Letters</i> , Vol. 36, No. 51, pp. 9269-9272 (1995)			
MAC	C24	Indumathy B. Mahadevan et al., "The Synthesis of Zinquin Ester and Zinquin Acid, Zinc(II)-Specific Fluorescing Agents for Use in the Study of Biological Zinc(II)" <i>Aust. J. Chem.</i> , Vol. 49, pp. 561-568 (1996)			
MAC	C25	M. Sarwar Nasir et al., "The chemical cell biology of zinc: structure and intracellular fluorescence of a zinc-quinolinesulfonamide complex", <i>JBIC</i> , Vol. 4, pp. 775-783 (1999)			
MAC	C26	Richard D. Palmiter et al., "Cloning and functional characterization of a mammalian zinc transporter that confers resistance to zinc", <i>The EMBO Journal</i> , Vol. 14, No. 4, pp. 639-649 (1995)			
MAC	C27	Richard D. Palmiter et al., "ZnT-2, a mammalian protein that confers resistance to zinc by facilitating vesicular sequestration", <i>The EMBO Journal</i> , Vol. 15, No. 8, pp. 1784-1791 (1996)			
MAC	C28	J. Siva Prasad et al., "Synthesis of Gadolinium (\pm)-10-(1-Hydroxypropan-2-yl)-1,4,7,10-tetraazacyclododecane-1,4,7-triyltriacetate via Tribenzyl 1,4,7,10-Tetraazacyclododecane-1,4,7-tricarboxylate", <i>J. Chem. Soc. Perkin Trans.</i> , Vol. 1, pp. 3329-3332 (1991)			

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Form PTO-1449		Docket Number (Optional) MTV-033.01		Application Number 09/901,466	
INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)		Applicant Stephen J. Lippard et al.		FEB 11 2002 PATENT OFFICE	
		Filing Date July 9, 2001			
MFC	C29	J. Kirk Romary et al., "New 2-Pyridyl Polyamines. Synthesis, Spectra, and Proton Dissociation Constants", <i>J. Chem. Soc.</i> , pp. 2884-2887 (1968)			
MFC	C30	Dean L. Pountney et al., "Isolation, primary structures and metal binding properties of neuronal growth inhibitory factor (GIF) from bovine and equine brain", <i>FEBS Letters</i> , Vol. 345, pp. 193-197 (1994)			
MFC	C31	Rajendra Nath Sen et al., "Aldehydofluorescein and Dyes Derived from it", <i>J. Indian Chem. Soc.</i> , Vol. 6, pp. 505-516 (1929)			
MFC	C32	Ulrich Horlein, "Zur Kneentis der Tetrahydrocarolin-Verbin-Dungen", <i>Chemische Berichte</i> , pp.463-472			
MFC	C33	L. Slomianka, "Neurons of Origin of Zinc-containing Pathways and the Distribution of Zinc-containing Boutons in the Hippocampal Region of the Rat", <i>Neuroscience</i> , Vol. 48, No. 2, pp. 325-352 (1992)			
MFC	C34	Bert L. Vallee et al., "The Biochemical Basis of Zinc Physiology", <i>Physiological Reviews</i> , Vol. 73, No. 1, pp. 79-118 (1993)			
MFC	C35	Grant K. Walkup et al., "A New Cell-Permeable Fluorescent Probe for Zn ²⁺ ", <i>J. Am. Chem. Soc.</i> , Vol. 122, No. 23, pp. 5644-5645 (2000)			
MFC	C36	M. Ebadi, "Metallothioneins and Other Zinc-Binding Proteins in Brain", <i>Methods in Enzymology</i> , Vol. 205, pp. 363-387			
MFC	C37	H. U. Wolfe, "Divalent Metal Ion Buffers with Low pH-Sensitivity", <i>Experientia, Monthly Journal of Pure and Applied Science</i> , Vol. 29, No. 2, pp. 241-249 (1973)			
MFC	C38	Peter D. Zalewski et al., "Correlation of apoptosis with change in intracellular labile Zn(II) using Zinquin [(2-methyl-8-p-toluenescuphonamido-6-quinolyloxy)acetic acid], a new specific fluorescent probe for Zn(II)", <i>Biochem. J.</i> , Vol. 296, pp 403-409 (1993)			
MFC	C39	Fen Wang et al., "Tuning of Binding Selectivity: Metal Control of Organic Guest Binding and Allosteric Perturbation of Fluorescent Metal Sensor", <i>J. Org. Chem.</i> , Vol. 64, No. 24, pp. 8922-8928 (1999)			
EXAMINER		Mary E. Ceperley		DATE CONSIDERED 12/26/02	
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.					

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Applicant
Stephen J. Lippard et al.

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U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
MEC	A7	US 4,510,251	04/09/85	Kirkemo et al.	436	536
MEC	A8	US 4,614,823	09/30/86	Kikermo et al.	544	300
MEC	A9	US 5,986,094	11/16/99	Ghoshal et al	544	230

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FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO
MEC	B1	EP 0 201 751 A2	11/20/86	European Patent Application	—		X
MEC	B2	EP 0 297 303 A2	01/04/89	European Patent Application	—		X

OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages Etc.)

MEC	C39	Walkup et al.; "A New Cell-Permeable Fluorescent Probe for Zn 2+", J. Am. Chem. Soc. 122: 5644-5645, (2000)
MEC	C40	International Search Report Completed on March 8, 2002 and Mailed on April 03, 2002
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